## **CLAIMS**

- 1. A process for increasing the optical purity of a mixture of enantiomers of mefloquine, using a substantially single enantiomer of a O,O-di-p-aroyltartaric acid as a resolving agent.
- 2. A process according to claim 1, for preparing a substantially single enantiomer of mefloquine, which proceeds by means of resolution of racemic mefloquine using a substantially single enantiomer of a *O*, *O*-di-*p*-aroyltartaric acid as a resolving agent.
  - 3. A process according to claim 1 or claim 2, wherein the resolving agent is *O*, *O*-di-*p*-toluoyl-L-tartaric acid.
    - 4. A process according to any preceding claim, wherein the mefloquine is contaminated with *threo*-mefloquine.
    - 5. A process according to any preceding claim, which is conducted in a solvent selected from esters, ketones and halogenated solvents.
- 6. A process according to any preceding claim, wherein the resolving agent is present in a sub-stoichiometric quantity, whereby an enantiomer of *erythro*-mefloquine is preferentially obtained.
  - 7. A process according to claim 6, which is conducted in the presence of an additional chiral or achiral acid.
- 8. A process according to any preceding claim, which further comprises conversion of the salt obtained by the resolution to the free base form of mefloquine or a pharmaceutically acceptable salt thereof.

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